IMMEDIAL COLOURS ON COTTON YARN

TRADE  MARK

CASSELLA COLOR COMPANY

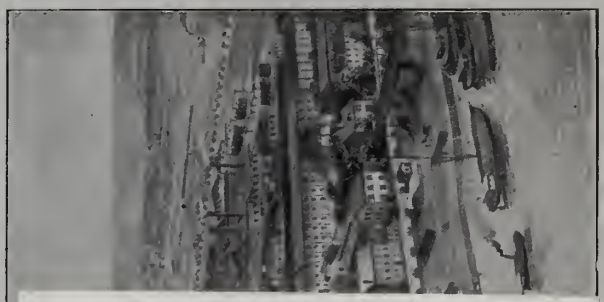
182 and 184 Front Street,

NEW YORK.

Boston: 39 Oliver Street.
Philadelphia: 126 and 128 South Front Street.
Providence: 64 Exchange Place.
Atlanta: 47 North Pryor Street.
Montreal, Canada, 59 William Street.

No. 3456

LEOPOLD CASSELLA & CO, G. m. b. H., FRANKFORT O. M.



Works at Mainkur near Frankfort o. M.

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MONTREAL: CANADA: 59 WILLIAM STREET.

IMMEDIAL COLOURS ON COTTON YARN

Directions for Dyeing.

For dissolving Immedial Colours it is best to use as soft water as possible. The dyestuff is to best advantage mixed in a wooden vessel with the soda required for dyeing, some monosolvol and a little warm water; after adding the sodium sulphide necessary for dyeing, it is dissolved by pouring hot water over the paste. The solution may be boiled up for a short time in order to ensure complete solution.

The dyeing is carried out in a wooden or iron vat or bark, which at one of the front sides is provided with sqeezing rollers. The parts of the vessels which come into contact with the liquor must not be of copper or brass. The heating is best done with indirect steam.

The dyeing is generally carried out in a hot bath in accordance with the directions in the following tables; if special demands for levelling are made, it is best to work on bent iron pipes.

It has to be observed that for light shades relatively, a much larger quantity of sodium sulphide is required than for deep shades. The quantity of salt should on the other hand be reduced or best be omitted altogether for light shades and yarns difficult to penetrate.

The quantities of sodium sulphide crystals stated in the following tables may be substituted by one-half the quantity of sodium sulphide concentrated.

Before lifting the goods, it is well to give each stick a few turns, then to squeeze by means of the squeezing rollers or to wring off evenly, and then to rinse and expose to the air or develop according to requirement as described further on.

For further particulars regarding the dyeing of Immedial Colours see our "Manual of Dyeing", Vol. I, 2nd. edition, pages 22—24, 67—70 and 78.

Names of Dyestuffs	(The percentages are calculated on the weight of the dry goods; the quantities of soda and salt in the starting bath are to be understood for 10 gallons liquor.)			
Black:	Dyestuff	Sodium Sulphide Crystals	Soda Ash	Desiccated Glauber's Salt or Common Salt
Immedial Black V extra, FF extra, G extra, NB, NG, NF, NR, NRT, AZ Immedial Blue Black KB Immedial Brilliant Black B				
For Grey:				
Starting Bath	1—6%	4—6%	3—4 oz per 10 gallons	0—8 oz per 10 gallons
For Subsequent Lots	0.75-4.5%	2—4.5%	0.1—0.2%	—
For Black:				
Starting Bath	15—24%	12—18%	4—8 oz per 10 gallons	2—3 lbs per 10 gallons
For Subsequent Lots	10—15%	7.5—10%	0.2—0.5%	0—5%

For Method of Dyeing see below.

	Dyestuff	Sodium Sulphide Crystals	Soda Ash	Desiccated Glauber's Salt or Common Salt
Immedial Black BF conc., NBB conc., NLN conc., NNR conc., NN conc., NNG conc., NNZ conc., NGL conc. Immedial Brilliant Black 5BV conc., 6BG conc., 8BG conc., BB conc., O conc.				
For Grey:				
Starting Bath	0.75—4%	4—6%	3—4 oz per 10 gallons	0—8 oz per 10 gallons
For subsequent Lots	0.6—3%	2—4.5%	0.1—0.2%	—
For Black:				
Starting Bath	10—18%	10—18%	4—8 oz per 10 gallons	2—3 lbs per 10 gallons
For Subsequent Lots	6—10%	6—10%	0.2—0.5%	0—5%

Dye for ½ to 1 hour, Greys in a warm to hot bath, Blacks near boiling temperature; squeeze off, and rinse at once.

For black shades produced with Immedial Black NGL conc., a quantity of sodium sulphide crystals about one-third the weight of the dyestuff is sufficient.

In the case of *Black*, if the goods are not brightened in an alkaline bath 4—8 oz acetate or formate of soda per 10 gallons are added; or, instead of these additions, soda ash (about 3—6 oz per 10 gallons) may be used.

If aftertrated with metallic salts in accordance with the instructions given on page 12, the goods are subsequently rinsed with acetate or formate of soda or with soda.

Bloomier dyeings are obtained by giving an air passage to the dyed and rinsed goods.

Names of Dyestuffs	(The percentages are calculated on the weight of the dry goods; the quantities of soda and salt in the starting bath are to be understood for 10 gallons liquor.)			
Black:		Dyestuff	Sodium Sulphide Crystals	Soda Ash	Desiccated Glauber's Salt or Common Salt
Immedial Carbon B, BL, BLR, JHJ, KBG, KBL, R	**For Grey:**				
	Starting Bath	0.5—3%	4—6%	3—4 oz per 10 gallons	0—8 oz per 10 gallons
	For Subsequent Lots	0.4-2.25%	2—4.5%	0.1—0.2%	—
	For Black:				
	Starting Bath	7—12%	14—20%	4—8 oz per 10 gallons	2—3 lbs per 10 gallons
Immedial Brilliant Carbon F, FB, FG	For Subsequent Lots	4.5—7%	9—12%	0.2—0.5%	0—5%

Immedial Carbon is dyed and treated exactly according to the afore-indicated instructions for Immedial Black.

		Dyestuff	Sodium Sulphide Crystals	Soda Ash	Desiccated Glauber's Salt or Common Salt
Indo Carbon S, SF	**For Grey:**				
	Starting Bath	0.75—4%	4—8%	3—4 oz per 10 gallons	0—8 oz per 10 gallons
	For Subsequent Lots	0.6—3%	2—6%	0.1—0.2%	—
	For Black:				
	Starting Bath	10—18%	20—30%	4—8 oz per 10 gallons	2—3 lbs per 10 gallons
	For Subsequent Lots	6—10%	12—15%	0.2—0.5%	0—5%

Dye for about ½ to 1 hour near boiling temperature, squeeze off, and rinse.

After rinsing, the goods are aftertreated with bichrome and acetic acid, according to the instructions on page 12.

Union goods containing warps dyed with Indo Carbon can unhesitatingly be dyed with sulphuric acid or bisulphate of soda, all that is needed being to rinse them carefully after the acid dyeing. Also for *sewing yarns*, which are exposed to a rather high temperature for some length of time, and for *yarns which are finally brightened with acid*, the Indo Carbons, owing to their resistance to heat and acids, offer considerable advantages. This applies also for *yarns used for woven goods which are subsequently stoved.* Such fabrics must after the stoving be freed from the sulphurous acid adhering to them, which is best effected by rinsing them subsequently in a cold, short bath of peroxide of hydrogen or perborate.

Use per 100 gallons rinsing liquor

2—3 gallons peroxide of hydrogen
abt. 1—1½ pints ammonia
} **The bath must smell slightly of ammonia;**
or 2—3 lbs peroxide of soda

treat the stoved and well rinsed pieces therein for about 10 minutes, rinse in fresh water, and dry.

Names of Dyestuffs

(The percentages are calculated on the weight of the dry goods; the quantities of soda and salt in the starting bath are to be understood for 10 gallons liquor.)

Blue Immedial Colours which are exposed to the air after dyeing.

Immedial Indone
R conc.
RR conc.
RG conc.
RB conc.
B conc.
3B conc.
4B conc.
BF conc.
BBF conc.
BN conc.
JBF conc.
JBN conc.

Immedial Dark Blue J.

	Dyestuff	Sodium Sulphide Crystals	Soda Ash	Desiccated Glauber's Salt or Common Salt
For Light Shades:				
Starting Bath	1–4%	4–10%	3—4 oz per 10 gallons	0–4 oz per 10 gallons
For Subsequent Lots	0.7–2.5%	2—5%	0.1–0.2%	—
For Medium and Deep Shades:				
Starting Bath	4—20%	10–40%	4–8 oz per 10 gallons	4 oz–2 lbs per 10 gallons
For Subsequent Lots	2.5–10%	5–20%	0.2–0.5%	0—5%

In order to obtain as bright shades as possible, dye for ½ to 1 hour at 40—60° C. (105—140° F.); more covered shades, and combinations with Immedial Direct Blue in particular, are dyed near boiling temperature. After dyeing, squeeze off, wring off as evenly as possible at the wringing post, hang up for ½ to 1 hour in the air, and rinse.

Somewhat fuller shades are obtained by the addition of glucose to the dyebath — about one-half the quantity of the dyestuff used for the starting bath and one-fifth to one-quarter of the same for subsequent lots.

By adding Immedial Intensifier C to the dyebath (about one-half the quantity as of dyestuff) and dyeing at a low temperature, somewhat fuller dyeings are obtained.

Immedial Intensifier C is best added in powder form to the fully charged bath shortly before entering the yarn, the bath being then stirred thoroughly.

Names of Dyestuffs	(The percentages are calculated on the weight of the dry goods; the quantities of soda and salt in the starting bath are to be understood for 10 gallons liquor.)			
Blue Immedial Colours which need not be oxidised after dyeing.		Dyestuff	Sodium Sulphide Crystals	Soda Ash	Desiccated Glauber's Salt or Common Salt
Immedial Direct Blue B, JB, OD, R	**For Light Shades:**				
	Starting Bath	1–4%	4–6%	3—4 oz per 10 gallons	0–8 oz per 10 gallons
	For Subsequent Lots	0.7–3%	2–4.5%	0.1—0.2%	—
	For Medium and Dark Shades:				
Immedial Dark Blue CRV	Starting Bath	4–20%	6–20%	4–8 oz per 10 gallons	8 oz–2 lbs per 10 gallons
	For Subsequent Lots	3—12%	3–12%	0.2–0.5%	0–5%

For Method of dyeing see below.

		Dyestuff	Sodium Sulphide Crystals	Soda Ash	Desiccated Glauber's Salt or Common Salt
Immedial Direct Blue B extra conc., BB extra conc., 4B extra conc., FCL extra conc., JB extra conc., JND extra conc., RC extra conc.	**For Light Shades:**				
	Starting Bath	0.5—2%	4–6%	3–4 oz per 10 gallons	0–8 oz per 10 gallons
	For Subsequent Lots	0.35-1.5%	2–4.5%	0.1—0.2%	–
	For Medium and Deep Shades:				
	Starting Bath	2–10%	6–20%	4—8 oz per 10 gallons	8 oz–2 lbs per 10 gallons
	For Subsequent Lots	1.5—6%	3–12%	0.2–0.5%	0—5%

Dye for ½ to 1 hour, light shades in a warm to hot bath, deeper shades near boiling temperature, squeeze off, and rinse.

The brightness of the shades can be increased by the following subsequent treatments.

1. By prolonged exposure to the air in a damp state.
2. by hot brightening with soap and soda,
3. by aftertreating with metallic salts, i. e.
   a) with bichrome,
   b) with bichrome and copper sulphate or bichrome and nickel sulphate, whereby also the fastness to washing and light is enhanced,
   c) with bichrome and bisulphite of soda as per directions on page 12;
4. by a treatment with Immedial Developer C according to the directions on page 14.

Names of Dyestuffs	(The percentages are calculated on the weight of the dry goods; the quantities of soda and salt in the starting bath are to be understood for 10 gallons liquor.)			
	Dyestuff	Sodium Sulphide Crystals	Soda Ash	Desiccated Glauber's Salt or Common Salt
Blue Immedial Colours which need not be oxidised after dyeing.				
For Light Shades:				
Starting Bath	1–4%	4–10%	3–4 oz per 10 gallons	0–4 oz per 10 gallons
For Subsequent Lots	0.7–2.5%	2—5%	0.1–0.2%	–
Immedial Indogene B conc. GCL conc. BCL conc. RCL conc. RRCL conc.				
For Medium and Deep Shades:				
Starting Bath	4—20%	10—40%	4—8 oz per 10 gallons	4 oz–2 lbs per 10 gallons
For Subsequent Lots	2.5—10%	5–20%	0.2–0.5%	0–8 oz per 10 gallons

Dye for ½ to 1 hour, pale and bright shades at 40—60° C. (105—140° F.), more covered shades near boiling temperature. Immedial Indogene B conc., whatever the depth of shade, is to best advantage always dyed near boiling temperature.

After dyeing, squeeze off, and rinse.

Immedial Indogene may be used at will in combination with Immedial Direct Blue or other Immedial Colours.

Immedial Green Blue CV

Immedial Green Blue CV is dyed with the same additions as are used for the single strength Immedial Direct Blue brands, and in the same manner. After dyeing, the goods are rinsed.

The aftertreatment of Immedial Green Blue is exactly the same as described on the preceding page for Immedial Direct Blue.

Names of Dyestuffs	(The percentages are calculated on the weight of the dry goods; the quantities of soda and salt in the starting bath are to be understood for 10 gallons liquor.)			
	Dyestuff	Sodium Sulphide Crystals	Soda Lye 77° Tw.	Desiccated Glauber's Salt or Common Salt
Blue Immedial Colours which are dyed direct or developed.				
For Light Shades:				
Starting Bath	2–6%	4–6%	1½–3 oz per 10 gallons	0–8 oz per 10 gallons
For Subsequent Lots	1.5–4%	2–4%	0.1–0.2%	—
For Medium and Deep Shades:				
Starting Bath	6–20%	6–20%	3–4 oz per 10 gallons	8 oz–2 lbs per 10 gallons
For Subsequent Lots	4–12%	4–12%	0.2–0.3%	0–5%

Immedial Blue C
CB
CR

Dye for about ½ to 1 hour near boiling temperature, and then work as indicated on next page for Immedial New Blue.

	Dyestuff	Sodium Sulphide Crystals	Soda Lye 77° Tw.	Desiccated Glauber's Salt or Common Salt
For Light Shades:				
Starting Bath	1–3%	4–6%	1½–3 oz per 10 gallons	0–8 oz per 10 gallons
For Subsequent Lots	0.75–2%	2–4%	0.1–0.2%	—
For Medium and Deep Shades:				
Starting Bath	3–10%	6–20%	3–4 oz per 10 gallons	8 oz–2 lbs per 10 gallons
For Subsequent Lots	2–6%	4–12%	0.2–0.3%	0–5%

Immedial Blue
C extra conc.
CB extra conc.
CBL extra conc.
CR extra conc.

Dye for about ½ to 1 hour near boiling temperature, and then treat as indicated on next page for Immedial New Blue G conc.

Names of Dyestuffs	(The percentages are calculated on the weight of the dry goods; the quantities of soda and salt in the starting bath are to be understood for 10 gallons liquor.)			
Blue Immedial Colours which are dyed direct or developed.		Dyestuff	Sodium Sulphide Crystals	Soda Lye 77° Tw.	Desiccated Glauber's Salt or Common Salt
	For Light Shades:				
	Starting Bath	2–6%	6–12%	1½–3 oz per 10 gallons	0–8 oz per 10 gallons
Immedial New Blue G conc.	For Subsequent Lots	1.5–4%	4–8%	0.1–0.2%	—
	For Medium and Deep Shades:				
	Starting Bath	6–20%	12–30%	3–4 oz per 10 gallons	8 oz–2 lbs per 10 gallons
	For Subsequent Lots	4–12%	8–18%	0.2–0.3%	0–5%

Dye near boiling temperature for about ½ to 1 hour. The dyed goods may be treated in various ways.

I. The goods, without rinsing, are freed as far as possible from adhering liquor by either squeezing off, wringing off or whizzing, the Blue being developed

a) by smothering,
b) by steaming,

and then rinsed.

II. The goods, after dyeing, are squeezed off, and rinsed straightaway. In order to increase the brightness of the shades, they may be developed by one of the following methods:

a) By brightening hot with soap and soda,
b) by treating with bichrome,
c) by treating with bichrome and copper sulphate, or bichrome and nickel sulphate,
d) by treating with bichrome and bisulphite,
e) by treating with Immedial Developer.

For full directions see pages 12 and 14.

Names of Dyestuffs	(The percentages are calculated on the weight of the dry goods; the quantities of soda and salt in the starting bath are to be understood for 10 gallons liquor.)			
Green and Olive:		Dyestuff	Sodium Sulphide Crystals	Soda Ash	Desiccated Glauber's Salt or Common Salt
Immedial Brilliant Green G extra Immedial Green GG extra BB extra GGX conc. BBX conc. BBXX conc. Immedial Deep Green G Immedial Dark Green B Immedial Olive B GG 3G Immedial Yellow Olive G 5G GB	**For Light Shades:**				
	Starting Bath	1—4%	4—6%	3—4 oz per 10 gallons	0—8 oz per 10 gallons
	Subsequent Lots	0.7—3%	2—4.5%	0.1—0.2%	—
	For Medium and Deep Shades:				
	Starting Bath	4—20%	6—20%	4—8 oz per 10 gallons	8 oz—2 lbs per 10 gallons
	Subsequent Lots	3—12%	3—12%	0.2—0.5%	0—5%

Dye for ½ to 1 hour, light shades in a warm to hot bath, and deep shades near boiling temperature; squeeze off, and rinse.

For combinations of the various Immedial Greens with Immedial Yellow, a little acetic acid should be added to the last rinsing bath.

Yellow and Orange:
Immedial Green Yellow G
Immedial Yellow GG
D
Immedial Orange C

Dye with the same ingredients in accordance with the same directions as given above for Green and Olive.

For Immedial Yellow a little acetic acid is added to the last rinsing bath after the dyeing.

Names of Dyestuffs	(The percentages are calculated on the weight of the dry goods; the quantities of soda and salt in the starting bath are to be understood for 10 gallons liquor.)			
	Dyestuff	Sodium Sulphide Crystals	Soda Ash	Desiccated Glauber's Salt or Common Salt
For Light Shades:				
Starting Bath	1–4%	4—6%	3—4 oz per 10 gallons	0—8 oz per 10 gallons
Subsequent Lots	0.7–3%	2–4.5%	0.1—0.2%	—
For Medium and Deep Shades:				
Starting Bath	4—20%	6—20%	4—8 oz per 10 gallons	8 oz–2 lbs per 10 gallons
Subsequent Lots	3—12%	3–12%	0.2—0.5%	0—5%

Brown:

Immedial Cutch G, O, OG, OR, R, BG, BGG
Immedial Brown B, BR, BRS, RR, W conc.
Immedial Yellow Brown EN
Immedial Dark Brown A, D conc., DN conc.
Immedial Khaki D, G
Immedial Bronze A

Dye for ½ to 1 hour, light shades in a warm to hot bath, deep shades near boiling temperature; squeeze off, and rinse.

Immedial Brown BRS is dyed without any sodium sulphide; for Immedial Cutch OG and OR about one-quarter the weight of sodium sulphide crystals as of dyestuff is sufficient. When dyeing these brands in combination with other Immedial Colours, the amount of sodium sulphide required for the latter should be added.

Immedial Prune S
Immedial Red Brown 3R

Immedial Prune and Immedial Red Brown are dyed with the same ingredients and in the same way as given above. Brighter shades may be obtained by dyeing at a lower temperature (50—60° C. or 120—140° F.). An addition of glue to the liquor (about one-quarter to one-fifth of the weight of the dyestuff) will have a similar effect.

Names of Dyestuffs	(The percentages are calculated on the weight of the dry goods; the quantities of soda and salt in the starting bath are to be understood for 10 gallons liquor.)			
		Dyestuff	Sodium Sulphide Crystals	Soda Ash	Desiccated Glauber's Salt or Common Salt
Claret and Maroon:					
Immedial Bordeaux G conc. GF conc. Immedial Maroon B conc.	**For Light Shades:**				
	Starting Bath	1 – 4%	4 – 6%	3—4 oz per 10 gallons	0—8 oz per 10 gallons
	For Subsequent Lots	0.75 – 2%	2—3%	0.1 – 0.2%	—
	For Medium and Deep Shades:				
	Starting Bath	4 – 20%	6 – 20%	4—8 oz per 10 gallons	8 oz–2 lbs per 10 gallons
	For Subsequent Lots	2 – 10%	2—10%	0.2 – 0.5%	0 – 5%

In order to obtain the brightest possible shades, dye to best advantage at 50—60° C. (120—140° F.), squeeze off, and rinse, adding a little acetic acid to the last rinsing bath.

The brightness of the dyeings is still further enhanced by adding a little glue to the liquor (about one-fifth to one-quarter of the weight of the dyestuff).

When used in combination with brown or other Immedial Colours, the products may be dyed very well in hot baths (near boiling temperature).

Violet and Purple:

Immedial Indone Violet B conc. is dyed exactly in accordance with the directions for the Immedial Indones on page 4.

Immedial Violet C, CB, CR, Immedial Purple C are dyed like Immedial Bordeaux and Immedial Maroon, the soda and salt being however to best advantage omitted. An addition of glue does not offer any advantage for these dyestuffs.

I. AFTERTREATMENT WITH METALLIC SALTS.

a) Aftertreatment with Bichrome.

This aftertreatment improves the shade in certain cases, especially with Blue and Black, and prevents light shades from changing by a subsequent oxidation.

The following quantities are as a rule employed:

3% bichrome and 3—5% acetic acid of 8° Tw.*

The dyed and well rinsed cotton is aftertreated hot for 20 to 30 minutes, and then rinsed again.

b) Aftertreatment with Bichrome and Copper Sulphate.

This aftertreatment increases the fastness to light, washing and acid cross-dyeing of most of the dyeings as well as the brightness of Immedial Direct Blue, Immedial Blue and Immedial New Blue. It also prevents the dyeings from changing by subsequent oxidation.

The following are the quantities as a rule used:

1.5—2% bichrome, 1.5—2% copper sulphate and 3—5% acetic acid*, the method of working being the same as described under (a).

c) Aftertreatment with Bichrome and Bisulphite.

This aftertreatment enhances the brightness of the blue Immedial Colours, especially of the Immedial Direct Blues, Immedial Blues and Immedial New Blues, offering moreover the advantage that it may be carried out in the cold bath.

The last rinsing bath is charged with

0.5—1% bichrome,

and is allowed to react for a few minutes on the goods, whereupon

3—6 oz bisulphite of soda of 64° Tw. per 10 gallons liquor

are added to the same bath, the goods being then treated for another 7 to 10 minutes, and rinsed once more.

d) Aftertreatment with Nickel Sulphate and Bichrome.

This method of aftertreatment, for which we hold Letters Patent, enhances the fastness to light and washing, and increases the brightness of Immedial Direct Blue, Immedial Blue and Immedial New Blue.

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* Instead of acetic acid, formic acid may be used.

It is applied mainly as a substitute for the aftertreatment with bichrome and bluestone in iron apparatus, because copper salts affect the iron.

The following are about the quantities to be used when following this method:

1—2% nickel sulphate, 1—2% bichrome, 3—5% acetic acid 8° Tw.

The dyed and well rinsed cotton is treated hot for 20 minutes, and rinsed well once more.

II. AFTERTREATMENT WITH ACETATE OR FORMATE OF SODA.

This treatment is applied as a final operation principally for Blacks produced with Immedial Colours in those cases in which the goods are not finally given an alkaline brightening or softening.

This aftertreatment is required especially in the case of all black dyeings (with the exception of those of Indo Carbon) which are brightened with acid (for instance in order to impart a silky scroop to the goods). In this case the acetate or formate of soda is added straight to the acid brightening bath.

An aftertreatment of this kind is important also for warps in half-wool goods if the pieces are subsequently cross-dyed in an acid bath or stoved, or if cotton dyed black in this manner is woven up with wool which has been dyed acid or has been stoved. After the acid cross-dyeing and stoving, the goods must without fail be rinsed thoroughly and then treated again with acetate of soda.

For yarns to be cross-dyed or stoved, it is well also to aftertreat with bichrome in the usual way after the dyeing and rinsing, and then to rinse with the addition of some acetate of soda to the last rinsing bath.

The quantity of acetate of soda required depends on the quality of the water used (hard water requiring less than soft water) and the amount of acid in the goods.

As a rule, $^1/_3$—1 lb acetate or formate of soda are required per 10 gallons water, this quantity being added to the last rinsing bath. The treatment with acetate or formate of soda is not applied to dyeings aftertreated with metallic salts until such aftertreatment has taken place.

If the yarns are to be sized after the dyeing without being dried previously, the salts are added to the size.

In many cases the acetate or formate of soda may be substituted entirely or in part by the cheaper soda.

III. AFTERTREATMENT WITH IMMEDIAL DEVELOPER.

This developer, which replaces the hydrogen peroxide and sodium peroxide used up to the present, keeps very well, and is easy to apply. It serves for the following two purposes:

a) For Oxidising Dyeings Produced with Immedial Indone, Immedial Indogene or Immedial Direct Blue.

Such dyeings oxidise more quickly, and gain in brightness by being rinsed in a bath containing a small quantity of Immedial Developer.

Dye and rinse the yarn in the usual manner. Raise the temperature of the last rinsing bath to 40—50° C. (105—120° F.), and charge the same with 0.5—1% Immedial Developer (of the weight of the goods) whilst stirring. Treat the cotton in this bath for about 20 minutes, and hydro-extract, drying at once as a rule.

b) For Developing Immedial Blue and Immedial New Blue Dyeings.

This method of developing yields just the same bright results as the older methods of developing by smothering and steaming. The latter methods are somewhat cheaper, but when for special reasons they cannot be applied, the developing may be effected with Immedial Developer. The developing with Immedial Developer is more advantageous than the process with peroxide of hydrogen or sodium which is occasionally applied for the same purpose.

Dye the cotton in the usual way, and rinse immediately. Stir 1—2% Immedial Developer (of the weight of the goods) into the last rinsing bath heated to 40—50° C. (105—120° F.); then enter the goods, and raise gradually to the boil, working about ½ hour in all. Finally rinse once more.

IV. DEVELOPING OF IMMEDIAL BLUE AND IMMEDIAL NEW BLUE BY STEAMING AND SMOTHERING OR TOPPING IN THE VAT.

After dyeing, the yarn is wrung off without rinsing, and developed either

a) by steaming for ¾ to 1 hour with admission of air, or
b) by smothering for some hours.

After developing, the goods are rinsed first hot and then cold, and finally soaped if necessary.

For full particulars regarding developing by steaming and smothering see our "Manual of Dyeing", Vol. I, 2nd. edition (No. 2938), pages 37/39.

The dyeings may further be developed by topping in the Indigo vat, the reducing action of the vat likewise developing the dyeings to a brighter Blue.

TOPPING WITH BASIC COLOURS.

Dyeings produced with Immedial Colours may be improved in brightness of shade by topping them with Basic Colours in a fresh bath.

The following are the best suited for the purpose:

For Blue:	New Methylene Blue, all brands, Methylene Blue BB, Indazine M, Naphtindone BB;
for Green:	Brilliant Green Crystals extra, Solid Green Crystals O;
for Brown:	Bismarck Brown, Chrysoïdine, Safranine, all brands;
for Claret and Violet:	Safranine, Tannin Heliotrope, Methyl Violet, all brands;
for Yellow and Orange:	Thioflavine T, TCN, Tannin Orange R, Diamond Phosphine, all brands.

The topping is carried out in a cold bath containing 5% acetic acid or alum; the dyestuff is added in several portions, the temperature being finally increased to about 80° (175° F.), and the goods then rinsed cold.

Without guarantee.

SELF SHADES

1.
3 % Immedial Yellow GG pat.

2.
6 % Immedial Yellow GG pat.

3.
4 % Immedial Yellow D pat.

4.
7 % Immedial Yellow D pat.

5.
3 % Immedial Orange C pat.

6.
6 % Immedial Orange C pat.

7.
3.5 % Immedial Cutch O pat.

8.
7.5 % Immedial Cutch O pat.

9.
3.5 % Immedial Cutch OR pat.

10.
7.5 % Immedial Cutch OR pat.

11.
3.5 % Immedial Cutch R pat.

12.
7.5 % Immedial Cutch R pat.

13.
3.5 % Immedial Cutch 2999 J pat.

14.
7.5 % Immedial Cutch 2999 J pat.

15.
3.5 % Immedial Cutch G pat.

16.
7.5 % Immedial Cutch G pat.

17.
3.5 % Immedial Cutch OG pat.

18.
7.5 % Immedial Cutch OG pat.

19.
3.5 % Immedial Cutch BGG pat.

20.
7.5 % Immedial Cutch BGG pat.

21.
3.5 % Immedial Cutch BG pat.

22.
7.5 % Immedial Cutch BG pat.

23.
4.5 % Immedial Dark Brown A pat.

24.
7.5 % Immedial Dark Brown A pat.

25.
3.5 % Immedial Dark Brown D conc. pat.

26.
7 % Immedial Dark Brown D conc. pat.

27.
4 % Immedial Dark Brown DN conc. pat.

28.
8 % Immedial Dark Brown DN conc. pat.

CASSELLA COLOR COMPANY, NEW YORK.

SELF SHADES

29.

3.5 % Immedial Brown B pat.

30.

7.5 % Immedial Brown B pat.

31.

3.5 % Immedial Brown BR.

32.

7.5 % Immedial Brown BR.

33.

3.5 % Immedial Brown BRS.

34.

7.5 % Immedial Brown BRS.

35.

3.5 % Immedial Brown RR pat.

36.

7.5 % Immedial Brown RR pat.

37.

5 % Immedial Red Brown 3R pat.

38.

8 % Immedial Red Brown 3R pat.

39.

3.5 % Immedial Prune S pat.

40.

7.5 % Immedial Prune S pat.

41.

3.5 % Immedial Brown W conc. pat.

42.

7.5 % Immedial Brown W conc. pat.

43.

3.5 % Immedial Bronze A pat.

44.

7.5 % Immedial Bronze A pat.

45.

5.5 % Immedial Khaki D pat.

46.

9 % Immedial Khaki D pat.

47.

5.5 % Immedial Khaki G pat.

48.

9 % Immedial Khaki G pat.

49.

3.5 % Immedial Yellow Brown EN pat.

50.

7.5 % Immedial Yellow Brown EN pat.

51.

4.5 % Immedial Yellow Olive 5G pat.

52.

7.5 % Immedial Yellow Olive 5G pat.

53.

4.5 % Immedial Yellow Olive G pat.

54.

7.5 % Immedial Yellow Olive G pat.

55.

4.5 % Immedial Yellow Olive GB pat.

56.

7.5 % Immedial Yellow Olive GB pat.

CASSELLA COLOR COMPANY, NEW YORK.

SELF SHADES

57.
4 % Immedial Green Yellow G pat.

58.
7.5 % Immedial Green Yellow G pat.

59.
4.5 % Immedial Olive 3G

60.
7.5 % Immedial Olive 3G

61.
4.5 % Immedial Olive GG pat.

62.
7.5 % Immedial Olive GG pat.

63.
4.5 % Immedial Olive B pat.

64.
7.5 % Immedial Olive B pat.

65.
5 % Immedial Dark Green B

66.
8 % Immedial Dark Green B

67.
5 % Immedial Green Blue CV pat.

68.
8 % Immedial Green Blue CV pat.

69.
5 % Immedial Green Blue CV pat. aftertreated with copper sulphate and bichrome.

70.
8 % Immedial Green Blue CV pat. aftertreated with copper sulphate and bichrome.

71.
5 % Immedial Brilliant Green G extra pat.

72.
8 % Immedial Brilliant Green G extra pat.

73.
5 % Immedial Green GG extra pat.

74.
8 % Immedial Green GG extra pat.

75.
5 % Immedial Green GGX conc. pat.

76.
8 % Immedial Green GGX conc. pat.

77.
5 % Immedial Deep Green G pat.

78.
8 % Immedial Deep Green G pat.

79.
5 % Immedial Green BB extra pat.

80.
8 % Immedial Green BB extra pat.

81.
5 % Immedial Green BBX conc. pat.

82.
8 % Immedial Green BBX conc. pat.

83.
5 % Immedial Green BBXN conc. pat.

84.
8 % Immedial Green BBXN conc. pat.

CASSELLA COLOR COMPANY, NEW YORK.

SELF SHADES

85.
6 % Immedial Violet C pat.

86.
12 % Immedial Violet C pat.

87.
6 % Immedial Violet CB pat.

88.
12 % Immedial Violet CB pat.

89.
6 % Immedial Violet CR pat.

90.
12 % Immedial Violet CR pat.

91.
6 % Immedial Purple C pat.

92.
12 % Immedial Purple C pat.

93.
3.5 % Immedial Bordeaux G conc. pat.

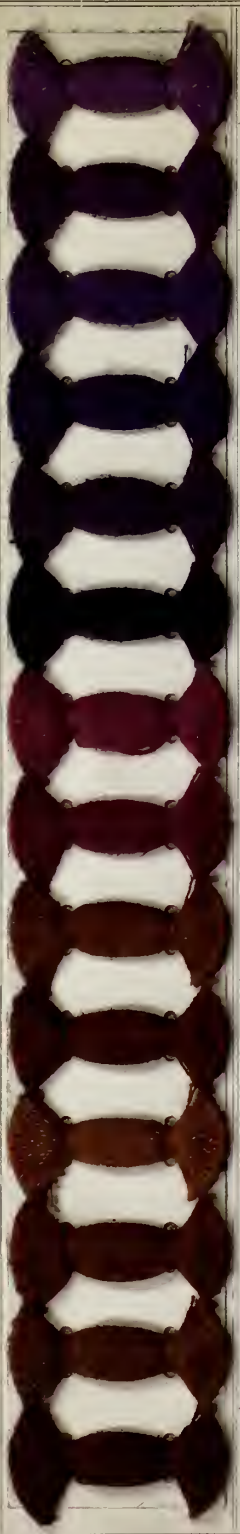
94.
6 % Immedial Bordeaux G conc. pat.

95.
3 % Immedial Bordeaux GF conc. pat.

96.
6 % Immedial Bordeaux GF conc. pat.

97.
3 % Immedial Maroon B conc. pat.

98.
6 % Immedial Maroon B conc. pat.



99.
3 % Immedial Indogene GCL conc. pat.

100.
8 % Immedial Indogene GCL conc. pat.

101.
3 % Immedial Indogene BCL conc. pat.

102.
8 % Immedial Indogene BCL conc. pat.

103.
3 % Immedial Indogene RCL conc. pat.

104.
8 % Immedial Indogene RCL conc. pat.

105.
3 % Immedial Indogene RRCL conc. pat.

106.
8 % Immedial Indogene RRCL conc. pat.

107.
3 % Immedial Indogene B conc. pat.

108.
8 % Immedial Indogene B conc. pat.

109.
3 % Immedial Indone B conc. pat.

110.
8 % Immedial Indone B conc. pat.

111.
3 % Immedial Indone BF conc. pat.

112.
8 % Immedial Indone BF conc. pat.

CASSELLA COLOR COMPANY, NEW YORK.

SELF SHADES

113.
3 % Immedial Indone 4B conc. pat.

114.
8 % Immedial Indone 4B conc. pat.

115.
3 % Immedial Indone 3B conc. pat.

116.
8 % Immedial Indone 3B conc. pat.

117.
3 % Immedial Indone BBF conc. pat.

118.
8 % Immedial Indone BBF conc. pat.

119.
3 % Immedial Indone JBF conc. pat.

120.
8 % Immedial Indone JBF conc. pat.

121.
3 % Immedial Indone JBN conc. pat.

122.
8 % Immedial Indone JBN conc. pat.

123.
3 % Immedial Indone BN conc. pat.

124.
8 % Immedial Indone BN conc. pat.

125.
4 % Immedial Indone RR conc. pat.

126.
8 % Immedial Indone RR conc. pat.

127.
3 % Immedial Indone Violet B conc. pat.

128.
7 % Immedial Indone Violet B conc. pat.

129.
3 % Immedial Indone R conc. pat.

130.
8 % Immedial Indone R conc. pat.

131.
3 % Immedial Indone RG conc. pat.

132.
8 % Immedial Indone RG conc. pat.

133.
3 % Immedial Indone RB conc. pat.

134.
8 % Immedial Indone RB conc. pat.

135.
5 % Immedial Dark Blue CRV pat.

136.
8 % Immedial Dark Blue CRV pat.

137.
5 % Immedial Dark Blue J pat.

138.
8 % Immedial Dark Blue J pat.

139.
5 % Immedial Direct Blue FCL extra conc. pat.

140.
8 % Immedial Direct Blue FCL extra conc. pat.

SELF SHADES

141.
4 % Immedial Direct Blue B extra conc. pat.

142.
8 % Immedial Direct Blue B extra conc. pat.

143.
4 % Immedial Direct Blue BB extra conc. pat.

144.
8 % Immedial Direct Blue BB extra conc. pat.

145.
4 % Immedial Direct Blue 4B extra conc. pat.

146.
8 % Immedial Direct Blue 4B extra conc. pat.

147.
4 % Immedial Direct Blue JB extra conc. pat.

148.
8 % Immedial Direct Blue JB extra conc. pat.

149.
4 % Immedial Direct Blue RC extra conc. pat.

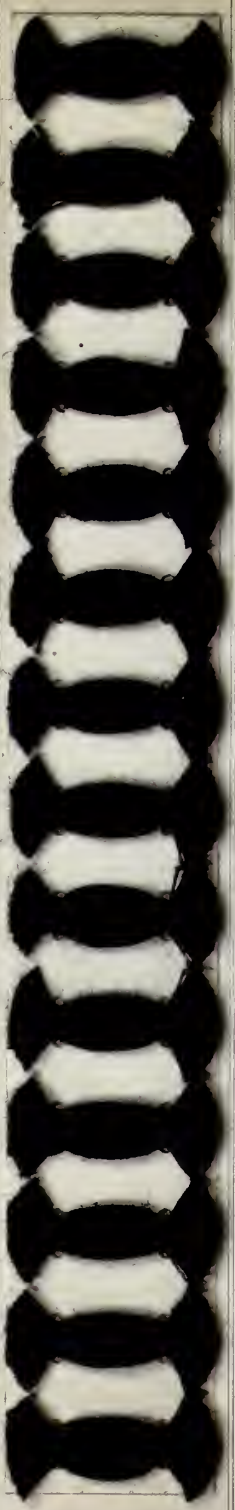
150.
8 % Immedial Direct Blue RC extra conc. pat.

151.
4 % Immedial Blue C extra conc.

152.
8 % Immedial Blue C extra conc.

153.
4 % Immedial Blue C extra conc. aftertreated with Immedial Developer.

154.
8 % Immedial Blue C extra conc. aftertreated with Immedial Developer.



155.
5 % Immedial New Blue G conc. pat.

156.
8.5 % Immedial New Blue G conc. pat.

157.
5 % Immedial New Blue G conc. pat. aftertreated with copper sulphate and bichrome.

158.
8.5 % Immedial New Blue G conc. pat. aftertreated with copper sulphate and bichrome.

159.
5 % Immedial New Blue G conc. pat. aftertreated with Immedial Developer.

160.
8.5 % Immedial New Blue G conc. pat. aftertreated with Immedial Developer.

161.
4 % Immedial Blue CR extra conc.

162.
8 % Immedial Blue CR extra conc.

163.
4 % Immedial Blue CR extra conc. aftertreated with copper sulphate and bichrome.

164.
8 % Immedial Blue CR extra conc. aftertreated with copper sulphate and bichrome.

165.
4 % Immedial Blue CR extra conc. aftertreated with Immedial Developer.

166.
8 % Immedial Blue CR extra conc. aftertreated with Immedial Developer.

167.
4 % Immedial Blue CB extra conc.

168.
8 % Immedial Blue CB extra conc.

SELF SHADES

169.
4 % Immedial Blue CB extra conc. aftertreated with copper sulphate and bichrome.

170.
8 % Immedial Blue CB extra conc. aftertreated with copper sulphate and bichrome.

171.
4 % Immedial Blue CB extra conc. aftertreated with Immedial Developer.

172.
8 % Immedial Blue CB extra conc. aftertreated with Immedial Developer.

173.
4 % Immedial Direct Blue JND extra conc. pat.

174.
8 % Immedial Direct Blue JND extra conc. pat.

175.
4 % Immedial Direct Blue JND extra conc. pat. aftertreated with copper sulphate and bichrome.

176.
8 % Immedial Direct Blue JND extra conc. pat. aftertreated with copper sulphate and bichrome.

177.
4 % Immedial Direct Blue JND extra conc. pat. aftertreated with Immedial Developer.

178.
8 % Immedial Direct Blue JND extra conc. pat. aftertreated with Immedial Developer.

179.
4 % Immedial Blue CBL extra conc.

180.
8 % Immedial Blue CBL extra conc.

181.
4 % Immedial Blue CBL extra conc. aftertreated with Immedial Developer.

182.
8 % Immedial Blue CBL extra conc. aftertreated with Immedial Developer.

183.
1.2 % Immedial Brilliant Black 6BG conc. pat.

184.
8 % Immedial Brilliant Black 6BG conc. pat.

185.
1.2 % Immedial Brilliant Black 8BG conc. pat.

186.
8 % Immedial Brilliant Black 8BG conc. pat.

187.
1.2 % Immedial Brilliant Black O conc. pat.

188.
8 % Immedial Brilliant Black O conc. pat.

189.
1.2 % Immedial Black NBB conc. pat.

190.
8 % Immedial Black NBB conc. pat.

191.
1.2 % Immedial Black NNG conc.

192.
8 % Immedial Black NNG conc.

193.
1.2 % Immedial Black BF conc.

194.
8 % Immedial Black BF conc.

195.
1.2 % Immedial Black NGL conc.

196.
8 % Immedial Black NGL conc.

CASSELLA COLOR COMPANY, NEW YORK.

SELF SHADES

197.
1.2 % Immedial Black NN conc.

198.
8 % Immedial Black NN conc.

199.
1.2 % Immedial Black NLN conc.

200.
8 % Immedial Black NLN conc.

201.
1.2 % Immedial Black NNR conc.

202.
8 % Immedial Black NNR conc.

203
1.2 % Immedial Black NNZ conc.

204.
8 % Immedial Black NNZ conc.

205.
1.2 % Immedial Black AZ

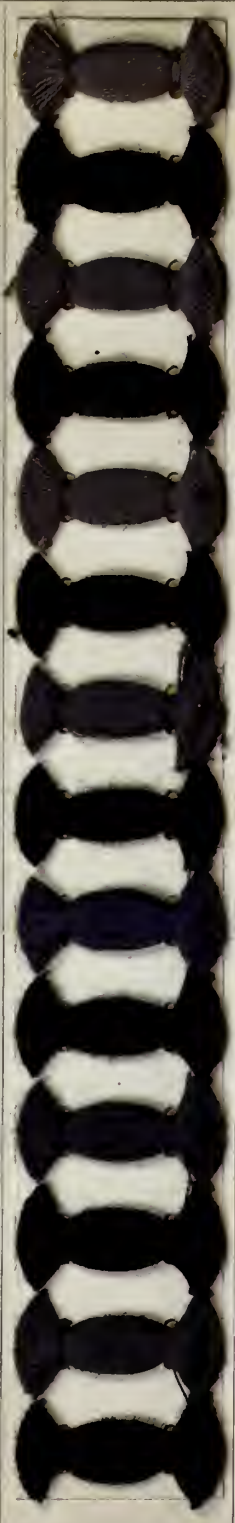
206.
12 % Immedial Black AZ

207.
1.5 % Immedial Black V extra

208.
12 % Immedial Black V extra

209.
1.5 % Immedial Black G extra

210.
12 % Immedial Black G extra



211.
1.5 % Immedial Black FF extra

212.
12 % Immedial Black FF extra

213.
1.5 % Immedial Black NB

214.
12 % Immedial Black NB

215.
1.5 % Immedial Black NG

216.
12 % Immedial Black NG

217.
1.5 % Immedial Black NF

218.
12 % Immedial Black NF

219.
1.5 % Immedial Black NR

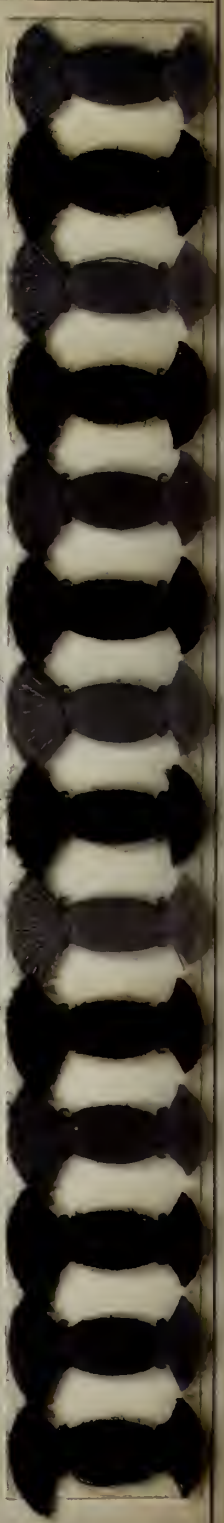
220.
12 % Immedial Black NR

221.
1.5 % Immedial Blue Black KB

222.
9 % Immedial Blue Black KB

223.
2 % Immedial Brilliant Black B pat.

224.
12 % Immedial Brilliant Black B pat.



CASSELLA COLOR COMPANY, NEW YORK.

SELF SHADES

225.
1 % Immedial Brilliant Black BB conc. pat.

226.
8 % Immedial Brilliant Black BB conc. pat.

227.
1 % Immedial Brilliant Black 5BV conc. pat.

228.
8 % Immedial Brilliant Black 5BV conc. pat.

229.
0.75% Immedial Brilliant Carbon F pat.

230.
5 % Immedial Brilliant Carbon F pat.

231.
0.75% Immedial Brilliant Carbon FG pat.

232.
5 % Immedial Brilliant Carbon FG pat.

233.
0.75% Immedial Brilliant Carbon FB pat.

234.
5 % Immedial Brilliant Carbon FB pat.

235.
0.75% Immedial Carbon B

236.
5 % Immedial Carbon B

237.
0.75% Immedial Carbon JHJ

238.
5 % Immedial Carbon JHJ

239.
0.75% Immedial Carbon BL

240.
5 % Immedial Carbon BL

241.
0.75% Immedial Carbon KBL

242.
5 % Immedial Carbon KBL

243.
0.75% Immedial Carbon R

244.
5 % Immedial Carbon R

245.
0.75% Immedial Carbon BLR

246.
5 % Immedial Carbon BLR

247.
0.75% Immedial Carbon KBG

248.
5 % Immedial Carbon KBG

249.
1 % Indo Carbon S pat. aftertreated with bichrome.

250.
8 % Indo Carbon S pat. aftertreated with bichrome.

251.
1 % Indo Carbon SF pat. aftertreated with bichrome.

252.
8 % Indo Carbon SF pat. aftertreated with bichrome.

CASSELLA COLOR COMPANY, NEW YORK.

253.

0.15% Immedial Black NRT
0.02% Immedial Dark Brown D conc

254.

0.16% Immedial Black NRT
0.1 % Immedial Direct Blue B.

255.

0.2 % Immedial Indone 3B conc.
0.06% Immedial Green BB extra.

256.

0.4 % Immedial Indone 3B conc.
0.04% Immedial Direct Blue B.

257.

0.5 % Immedial Direct Blue B
0.2 % Immedial Deep Green G.

258.

0.3 % Immedial Brilliant Black 6BG conc.
0.25% Immedial Direct Blue B.

259.

0.3 % Immedial Direct Blue B
0.05% Immedial Prune S.

260.

0.35% Immedial Black NLN conc.
0.1 % Immedial Prune S.

261.

0.8 % Immedial Black NLN conc.
1 % Immedial Brown RR.

262.

0.85% Immedial Black NNG conc.
0.8 % Immedial Brown BR.

263.

0.55% Immedial Carbon B
0.25% Immedial Yellow Olive G.

264.

0.75% Immedial Carbon B
2.25% Immedial Yellow Olive G
0.45% Immedial Dark Brown D conc.

265.

1.4 % Immedial Direct Blue B
0.35% Immedial Dark Green B.

266.

0.25% Immedial Black NNG conc.
0.8 % Immedial Direct Blue B
0.4 % Immedial Prune S.

267.

0.1 % Immedial Black NRT
0.05% Immedial Yellow Olive G
0.15% Immedial Dark Brown D conc.

268.

0.07% Immedial Black NRT
0.04% Immedial Yellow Olive G
0.1 % Immedial Dark Brown D conc.

269.

0.09% Immedial Cutch BGG
0.12% Immedial Black NNG conc.
0.12% Immedial Yellow Olive 5G.

270.

0.4 % Immedial Black NRT
0.04% Immedial Cutch R.

271.

0.3 % Immedial Black NNG conc.
0.05% Immedial Dark Brown D conc.

272.

0.3 % Immedial Black NNG conc.
0.15% Immedial Dark Brown D conc.

273.

0.2 % Immedial Black NLN conc.
0.25% Immedial Dark Brown D conc.

274.

0.15% Immedial Black NNG conc.
0.15% Immedial Dark Brown D conc.
0.05% Immedial Cutch G.

275.

1 % Immedial Black NRT
0.3 % Immedial Yellow Olive G.

276.

0.3 % Immedial Black NNG conc.
0.35% Immedial Dark Brown D conc.
0.2 % Immedial Yellow Olive G.

277.

0.6 % Immedial Black NNG conc.
0.5 % Immedial Yellow Olive G.

278.

0.37% Immedial Black NBB conc.
0.45% Immedial Dark Green B.

279.

0.55% Immedial Black NNG conc.
0.8 % Immedial Dark Brown D conc.

280.

0.35% Immedial Black NNG conc.
0.75% Immedial Dark Brown D conc.
0.15% Immedial Cutch G.

COMPOUND SHADES

281.

0.25 % Immedial Cutch G
0.35 % Immedial Black NRT.

282.

0.25 % Immedial Yellow Olive G
0.2 % Immedial Dark Brown D conc.

283.

0.12 % Immedial Yellow Olive G
0.2 % Immedial Cutch O
0.08 % Immedial Dark Brown D conc.

284.

0.6 % Immedial Yellow Olive G
0.45 % Immedial Cutch O
0.005% Immedial Black NG.

285.

0.45 % Immedial Cutch G
0.3 % Immedial Yellow Olive G
0.25 % Immedial Dark Brown D conc.

286.

0.6 % Immedial Cutch BGG
0.4 % Immedial Yellow Olive G
0.2 % Immedial Black NNG conc.

287.

1.4 % Immedial Cutch O
1.2 % Immedial Black NRT.

288.

0.25 % Immedial Yellow Olive G
0.5 % Immedial Dark Brown D conc.
0.2 % Immedial Cutch O.

289.

0.08 % Immedial Yellow Olive G
0.7 % Immedial Dark Brown D conc.
0.15 % Immedial Dark Green B.

290.

0.65 % Immedial Cutch BGG
0.5 % Immedial Black NRT.

291.

0.6 % Immedial Yellow Olive G
0.65 % Immedial Dark Brown D conc.

292.

2.4 % Immedial Yellow Olive G
1.1 % Immedial Dark Brown D conc.

293.

2.4 % Immedial Yellow Olive G
2.5 % Immedial Dark Brown D conc.
0.25 % Immedial Black NNG conc.

294.

0.8 % Immedial Carbon B
0.8 % Immedial Dark Brown D conc.
0.8 % Immedial Yellow Olive 5G.

295.

0.12% Immedial Yellow Olive G
0.3 % Immedial Cutch G
0.05% Immedial Dark Brown D conc.

296.

0.35% Immedial Cutch BGG
0.55% Immedial Yellow Olive G.

297.

0.8 % Immedial Yellow Olive G
0.2 % Immedial Cutch O.

298.

0.55% Immedial Yellow Olive G
0.4 % Immedial Cutch O.

299.

2 % Immedial Cutch BGG.

300.

2.5 % Immedial Yellow Olive 5G
1.7 % Immedial Brown BR.

301.

1.65% Immedial Green Yellow G
1.15% Immedial Dark Green B
3 % Immedial Cutch O.

302.

0.65% Immedial Dark Brown D conc.
0.7 % Immedial Cutch BGG.

303.

1.75% Immedial Cutch G
1 % Immedial Dark Brown A.

304.

2.7 % Immedial Cutch G
1.2 % Immedial Dark Brown A.

305.

1.4 % Immedial Cutch BGG
0.7 % Immedial Dark Brown D conc.

306.

3.5 % Immedial Cutch OR
1.5 % Immedial Brown W conc.

307.

0.5 % Immedial Carbon B
4 % Immedial Cutch BGG
4 % Immedial Yellow Olive 5G.

308.

2.6 % Immedial Dark Brown D conc.
0.3 % Immedial Carbon B
5 % Immedial Yellow Olive G.

309.

0.7 % Immedial Orange C
0.15% Immedial Bordeaux GF conc.

310.

3 % Immedial Orange C
0.12% Immedial Bordeaux GF conc.

311.

0.7 % Immedial Orange C
0.9 % Immedial Bordeaux GF conc.

312.

0 85% Immedial Cutch O
0.9 % Immedial Bordeaux G conc.

313.

2 % Immedial Cutch R
0.75% Immedial Maroon B conc.

314.

1 % Immedial Orange C
3 % Immedial Bordeaux GF conc.

315.

4.5 % Immedial Orange C
4.5 % Immedial Bordeaux GF conc.

316.

1.6 % Immedial Maroon B conc.
0.25% Immedial Cutch BGG
0.55% Immedial Brown BR.

317.

2.2 % Immedial Maroon B conc.
1.6 % Immedial Cutch BGG.

318.

3 % Immedial Brown BR
2 % Immedial Maroon B conc.

319.

2.6 % Immedial Brown BR
1.75% Immedial Dark Brown D conc.

320.

3 % Immedial Cutch OR
4.5 % Immedial Brown W conc.

321.

4 % Immedial Brown W conc.
1.6 % Immedial Prune S.

322.

7 % Immedial Prune S
1.2 % Immedial Direct Blue B extra conc.

323.

0.16% Immedial Yellow D
0.16% Immedial Yellow GG.

324.

0.33% Immedial Yellow D
0.33% Immedial Yellow GG.

325.

1.8 % Immedial Yellow Olive 5G
1.8 % Immedial Yellow GG.

326.

6 % Immedial Yellow D
2.5 % Immedial Yellow Olive G.

327.

1.5 % Immedial Yellow D
4 % Immedial Yellow Olive 5G.

328.

3 % Immedial Yellow Olive 5G
0.6 % Immedial Cutch O.

329.

0.66% Immedial Yellow D
0.33% Immedial Orange C.

330.

2 % Immedial Yellow D
0.4 % Immedial Orange C.

331.

1.15% Immedial Cutch O
0.12% Immedial Orauge C.

332.

2 % Immedial Cutch O
3.3 % Immedial Yellow D.

333.

1 % Immedial Cutch O
1 % Immedial Yellow D.

334.

1.35% Immedial Cutch O
2 % Immedial Yellow Olive G.

335.

3.5 % Immedial Green Yellow G
1.5 % Immedial Dark Green B
5 % Immedial Cutch O.

336.

3.75% Immedial Cutch BGG
2 % Immedial Yellow Olive 5G.

337.

0.24% Immedial Yellow GG
0.2 % Immedial Brilliant Green G extra.

338.

1.45% Immedial Yellow GG
0.85% Immedial Brilliant Green G extra.

339.

0.25% Immedial Yellow GG
3 % Immedial Brilliant Green G extra.

340.

1.35% Immedial Green GG extra
0.2 % Immedial Yellow GG topped with
0.2 % Brilliant Green cryst. extra.

341.

3 % Immedial Green GG extra
0.9 % Immedial Yellow Olive G
2.5 % Immedial Deep Green G topped with
0.4 % Brilliant Green cryst. extra.

342.

2 % Immedial Green Yellow G
2 % Immedial Green GG extra.

343.

2 % Immedial Green Yellow G
2.5 % Immedial Deep Green G
2 % Immedial Yellow Olive 5G.

344.

5 % Immedial Yellow Olive 5G
1 % Immedial Green Yellow G
3 % Immedial Green GG extra.

345.

5 % Immedial Green Yellow G
1.5 % Immedial Dark Green B.

346.

4 % Immedial Yellow Olive 5G
5 % Immedial Dark Green G.

347.

2.5 % Immedial Green Yellow G
3 % Immedial Dark Green B
0.75% Immedial Cutch O.

348.

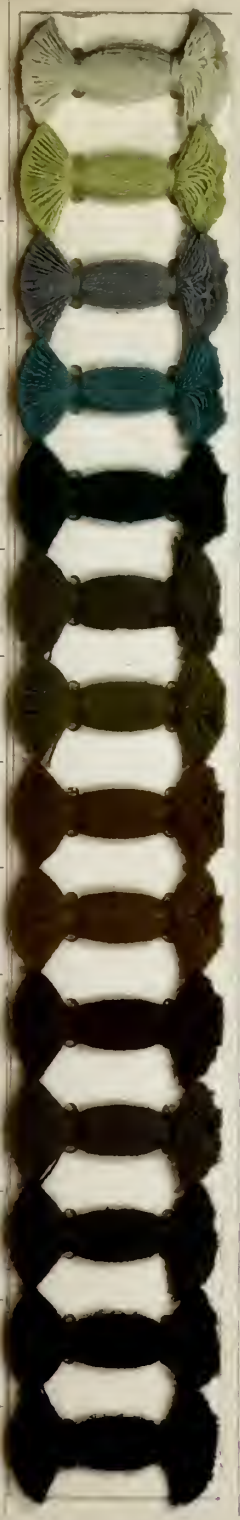
7 % Immedial Dark Green B
1.75% Immedial Cutch O
1.2 % Immedial Deep Green G.

349.

1.65% Immedial Green Yellow G
7 % Immedial Deep Green G.

350.

5.5 % Immedial Deep Green G.
1 % Immedial Carbon B.



351.

0.26% Immedial Green GG extra
0.6 % Immedial Green Blue CV.

352.

2 % Immedial Deep Green G
0.3 % Immedial Green GG extra topped with
0.1 % Methylene Blue BB.

353.

2.5 % Immedial Indogene GCL conc.
1.25% Immedial Green BB extra.

354.

2 % Immedial Indogene GCL conc.
3 % Immedial Green BB extra.

355.

1.35% Immedial Indogene GCL conc.
1.6 % Immedial Green BB extra.

356.

1.2 % Immedial Indogene GCL conc.
0.4 % Immedial Green BB extra.

357.

0.3 % Immedial Indogene GCL conc.

358.

0.5 % Immedial Indogene GCL conc.
0.1 % Immedial Green BB extra.

359.

1.5 % Immedial Indogene GCL conc.
0.2 % Immedial Deep Green G.

360.

0.8 % Immedial Indogene BCL conc.
0.8 % Immedial Indogene GCL conc.

361.

1.75% Immedial Indone BBF conc.
0.4 % Immedial Indogene GCL conc.

362.

2 % Immedial Indone JBF conc.
0.4 % Immedial Direct Blue BB extra conc.

363.

1.65% Immedial Direct Blue 4B extra conc.
1.5 % Immedial Deep Green G.

364.

4 % Immedial Indogene GCL conc.
2.4 % Immedial Indone R conc.

365.

2 % Immedial Indone BBF conc.

366.

1.9 % Immedial Indogene GCL conc.
1.6 % Immedial Indone R conc.
2 % Immedial Direct Blue B extra conc.

367.

1 % Immedial Direct Blue B extra conc.
3.5 % Immedial Indogene B conc.
2.5 % Immedial Indone BF conc.

368.

4 % Immedial New Blue G conc.
2 % Immedial Blue C extra conc. developed with Immedial Developer.

369.

1.6 % Immedial Indone R conc.
4 % Immedial Indogene B conc.
1 % Immedial Direct Blue B extra conc.

370.

4.5 % Immedial Blue CR extra conc.
0.6 % Immedial New Blue G conc. developed with Immedial Developer.

371.

4 % Immedial Indone JBN conc.
2 % Immedial Indone R conc.
2 % Immedial Direct Blue B extra conc.

372.

5 % Immedial Indone JBN conc.
1 % Immedial Indone R conc.
2 % Immedial Direct Blue B extra conc.

373.

1.5 % Immedial Indone JBN conc.
6 % Immedial Indone R conc.
1.3 % Immedial Direct Blue B extra conc.

374.

4 % Immedial Indone JBN conc.
2.4 % Immedial Indone R conc.
2.5 % Immedial Direct Blue B extra conc.

375.

2 % Immedial Direct Blue B extra conc.
3 % Immedial Indone Violet B conc.
0.5 % Immedial Indone JBN conc.

376.

4 % Immedial Direct Blue B extra conc.
3 % Immedial Indone JBF conc.
4 % Immedial Deep Green G.

377.

8 % Immedial Direct Blue R
1 % Immedial Black NLN conc.

378.

8 % Immedial Direct Blue B extra conc.

379.

2 % Immedial Indone JBN conc.
1.5 % Immedial Indone R conc.
1.3 % Immedial Direct Blue B extra conc.

380.

1.8 % Immedial Direct Blue B extra conc.
2.5 % Immedial Indone RR conc.
2.5 % Immedial Indone JBN conc.

381.

3 % Immedial Blue CR extra conc.
1.5 % Immedial Black NLN conc.

382.

4 % Immedial Indone Violet B conc.
6 % Immedial Purple C
0.6 % Immedial Bordeaux GF conc.

383.

2 % Immedial Indone Violet B conc.
4 % Immedial Purple C.

384.

4 % Immedial Violet C
1.3 % Immedial Purple C topped with
0.2 % Methyl Violet BB No. 72.

385.

0.55% Immedial Indone Violet B conc.
0.4 % Immedial Bordeaux GF conc.

386.

1.5 % Immedial Indone Violet B conc.
1 % Immedial Bordeaux GF conc.

387.

1.4 % Immedial Indone RR conc.
1.6 % Immedial Bordeaux G conc.

388.

1.4 % Immedial Indone Violet B conc.
1.7 % Immedial Bordeaux G conc.

389.

5 % Immedial Indone Violet B conc.
7 % Immedial Bordeaux G conc.

390.

4 % Immedial Violet C
4 % Immedial Purple C topped with
0.1 % Tannin Heliotrope.

391.

0.3 % Immedial Violet C
3 % Immedial Purple C topped with
0.1 % Safranine S No. 150.

392.

0.9 % Immedial Purple C
1 % Immedial Bordeaux G conc. topped with
0.1 % Tannin Heliotrope.

COMPOUND SHADES
AFTERTREATED WITH METALLIC SALTS

393.

0.09% Immedial Cutch BG
0.18% Immedial Dark Brown D conc.

394.

1.4 % Immedial Khaki D
0.12% Immedial Cutch O.

395.

1.65% Immedial Khaki G.

396.

1.5 % Immedial Khaki D
1.5 % Immedial Khaki G.

397.

0.8 % Immedial Yellow Olive G
1.5 % Immedial Yellow D.

398.

1.4 % Immedial Yellow D
1.4 % Immedial Khaki G
0.14% Immedial Dark Green B.

399.

0.6 % Immedial Yellow D.

400.

1 % Immedial Yellow D.

401.

0.6 % Immedial Yellow Olive 5G
1 % Immedial Orange C.

402.

0.4 % Immedial Yellow Olive 5G
0.4 % Immedial Brown BR
0.2 % Immedial Dark Green B.

403.

0.8 % Immedial Yellow Olive 5G
0.6 % Immedial Brown BR
0.5 % Immedial Dark Green B.

404.

0.8 % Immedial Yellow Olive G
0.3 % Immedial Dark Brown D conc.

405.

0.4 % Immedial Dark Green B
3 % Immedial Khaki D
0.5 % Immedial Dark Brown D conc.

406.

2 % Immedial Yellow Olive G
0.8 % Immedial Yellow D
0.1 % Immedial Black NNG conc.

407.

0.2 % Immedial Yellow Olive G
0.5 % Immedial Dark Brown D conc.

408.

0.4 % Immedial Yellow Olive G
0.17% Immedial Dark Brown D conc.
0.17% Immedial Carbon B.

409.

0.55% Immedial Yellow Olive G
0.8 % Immedial Dark Brown D conc.
0.2 % Immedial Carbon B.

410.

1.2 % Immedial Yellow Olive G
0.35% Immedial Dark Brown D conc.
0.25% Immedial Carbon B.

411.

2 % Immedial Yellow Olive G
1.6 % Immedial Dark Brown D conc.
0.5 % Immedial Carbon B.

412.

1 % Immedial Yellow Olive G
1.35% Immedial Dark Brown D conc.
0.2 % Immedial Carbon B.

413.

6 % Immedial Khaki G.

414.

6 % Immedial Khaki D.

415.

3 % Immedial Cutch O
7 % Immedial Yellow Olive 5G.

416.

4.5 % Immedial Cutch O
4.5 % Immedial Bordeaux G conc.

417.

1.65% Immedial Yellow Olive 5G
3 % Immedial Cutch BGG.

418.

3 % Immedial Cutch G
1.65% Immedial Orange C
1 % Immedial Maroon B conc.

419.

2.5 % Immedial Cutch O
3.5 % Immedial Maroon B conc.

420.

2.5 % Immedial Orange C
2 % Immedial Yellow Olive 5G
4 % Immedial Bordeaux GF conc.

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COMPOUND SHADES
AFTERTREATED WITH METALLIC SALTS

421.

1 % Immedial Green GG extra
4 % Immedial Yellow GG
4 % Immedial Yellow Olive 5G.

422.

2 % Immedial Green GG extra
4.5 % Immedial Yellow GG
2.5 % Immedial Yellow Olive 5G.

423.

2.3 % Immedial Green GG extra
4.5 % Immedial Yellow GG
1.25% Immedial Yellow Olive 5G.

424.

1.8 % Immedial Green GG extra
3 % Immedial Yellow GG
0.6 % Immedial Yellow Olive 5G.

425.

2.75% Immedial Green GG extra
1.25% Immedial Yellow GG
0.5 % Immedial Yellow Olive 5G.

426.

2.6 % Immedial Yellow Olive 5G
5 % Immedial Brilliant Green G extra.

427.

7 % Immedial Green GG extra
1 % Immedial Yellow Olive 5G.

428.

2 % Immedial Green GG extra
7 % Immedial Brilliant Green G extra.

429.

5 % Immedial Green Blue CV
2 % Immedial Green GG extra.

430.

5 % Immedial Green Blue CV
3 % Immedial New Blue G conc.

431.

2.8 % Immedial Indogene BCL conc.
2.2 % Immedial Direct Blue B extra conc.

432.

3 % Immedial Direct Blue B extra conc.
4 % Immedial Dark Green B.

433.

4 % Immedial Direct Blue B extra conc.
2 % Immedial Dark Green B.

434.

2.6 % Immedial Direct Blue B extra conc.
3 % Immedial Dark Green B
1.25% Immedial Carbon B.

435.

3 % Immedial Indone Violet B conc.
5 % Immedial Violet C.

436.

4 % Immedial Indone Violet B conc.
1 % Immedial Violet CR.

437.

2 % Immedial Indone Violet B conc.
6 % Immedial Violet CR.

438.

0.18% Immedial Direct Blue B
0.04% Immedial Green GG extra.

439.

0.23% Immedial Direct Blue B
0.12% Immedial Green GG extra
0.36% Immedial Carbon B.

440.

0.16% Immedial Green GG extra
0.7 % Immedial Carbon B
0.3 % Immedial Dark Brown D conc.

441.

0.5 % Immedial Direct Blue B
1.45% Immedial Carbon B
0.55% Immedial Prune S.

442.

0.32% Immedial Carbon B
0.6 % Immedial Dark Brown D conc.
0.2 % Immedial Yellow Olive 5G.

443.

1.15% Immedial Yellow Olive G
0.3 % Immedial Dark Brown D conc.
1.2 % Immedial Carbon B.

444.

0.7 % Immedial Carbon B
4.6 % Immedial Yellow Brown EN
2 % Immedial Olive B.

445.

8 % Immedial Olive B
2 % Immedial Yellow Olive 5G.

446.

1.2 % Immedial Carbon B
5 % Immedial Olive B
4 % Immedial Yellow Olive 5G.

447.

6 % Immedial Dark Brown D conc.
4 % Immedial Yellow Brown EN
3 % Immedial Olive B.

448.

6 % Immedial Dark Brown D conc.
1.2 % Immedial Carbon B
2 % Immedial Cutch BGG.

CASSELLA COLOR COMPANY, NEW YORK.

MANUFACTURE LYONNAISE DE MATIÈRES COLORANTES, LYONS.

Works "La Mouche".

RUSSIAN ANNILINE COLOUR WORKS LEOPOLD CASSELLA & Co., RIGA.

Works at Riga.